DVDO

DVDO Quick^6

6x2 4K Ultra HD HDMI Switcher

User's Guide

Version 1.0

Important Safety Information

- Follow all instructions
- Use only a dry cloth to clean
- Use caution not to block any vents in either unit
- To reduce the risk of electric shock, do not use near water or expose to rain or moisture. Keep away from excess moisture
- Do not use near heat sources such as room heaters, hot A/V equipment
- Read all warnings
- Use only accessories approved by DVDO including mounting brackets
- Unplug the device during lightning storms or when unused for long periods of time
- Keep away from open flames
- Protect all connected cords including power cords from being pinched, compressed, stepped on
- Do not open the case. All servicing should be done only by qualified and approved service personnel

Contents

Overview

Quick^6™ is DVDO's latest HDMI switcher for home entertainment and theater applications.

Key features

- InstaPrevue$^®$ technology
- InstaPort$^®$ S technology
- 6 HDMI inputs, 2 HDMI outputs; 4K Ultra HD 3D capable
- MHL$^®$ capability on two inputs
- Auto Switching – three modes
- Optical and coax S/PDIF outputs
- Serial and IR remote control
- Simple Firmware update using USB flash drive
- On-screen display (OSD) for easy setup and control
- Special AVR mode for easy integration with any existing audio receiver
- Auto negotiating Mirror mode ensures compatibility
- Remote control (including discrete on and off codes)

In the Box

- Quick^6 HDMI switcher
- 12 V power supply
- Remote control
- Quick Start guide

InstaPrevue Visual Switching Technology

Quick[6] InstaPrevue technology provides the user with a simple way to view and select inputs. Instead of choosing from a text list of input names, Quick[6] offers visual input selection by displaying individual preview windows for each active input. Activate InstaPrevue by pressing the InstaPrevue button ▱ .

Note that preview windows only display actively connected inputs.

Use the arrow buttons on the remote control to select the input you want to watch and press the ENTER button to switch to the input

There are two modes available that are set in the InstaPrevue > Activate Names menu:

- **Offset mode:** In this mode, the selected window is offset to show which input is being selected
- **Named mode:** In this mode, the selected input name is shown above its preview window
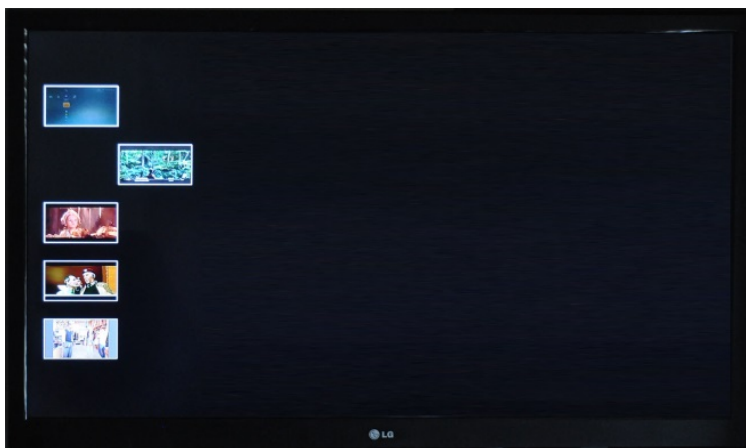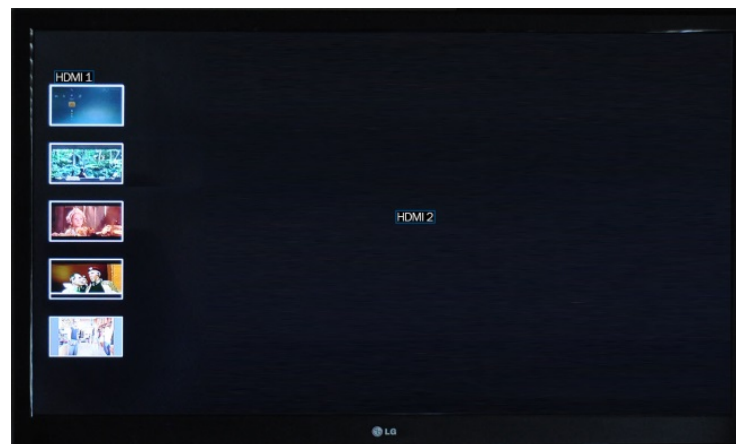
Offset Mode   **Named Mode**

InstaPort S Single-second Switching Technology

Typically, when a source device is connected to an HDMI switcher, the HDCP authorization process is not initialized until that source is selected as the input to be displayed on the TV. However, Quick[6] InstaPort S technology performs the HDCP authorization routine immediately when the device is connected. Then, when a user selects that source, it outputs the content immediately, without having to wait for HDCP authentication. This results in a better user experience. The only delay in the system is typically caused by the TV when the user switches between sources of different resolutions and the TV needs to sync to the new format.

Input/Output

Front Panel

1. IR window – remote control receiver
2. Input indicators (Off = no connection, Amber = HDMI connected, Green = active input)
3. Input select – manually cycles through connected inputs
4. Power switch
5. Power indicator

Back Panel

1. Power input – 12 VDC 3 A minimum
2. Update firmware button – see the firmware update section for details. This button is held during power-up to start the firmware update process from an attached USB flash drive.
3. USB connector – Primarily used for updating firmware, but also supplies 5 V up to 1 A for accessories
4. Serial port: allows control of Quick^6 by external control systems
5. HDMI outputs – Main output is always active, Aux output depends on OSD setting – The two available modes are Mirror and AVR
6. S/PDIF audio outputs – Coax and optical: Whenever the audio stream permits, audio is extracted from the active input and also sent to the S/PDIF outputs
7. HDMI Inputs 1–6 – Input 1 and Input 6 are each capable of connecting to a MHL mobile device as well using only a passive cable. These ports can each supply up to 900 mA for charging the mobile device.

Connections

AVR via HDMI and AVR via S/PIDF Modes

In this configuration, Quick^6 becomes the primary HDMI switch and control center for a home theater. Connection to the existing AVR can be via HDMI or S/PDIF (for older AVRs with no HDMI). If the AVR has an HDMI input, this is preferred as it provides the best overall experience. With either connection, the AVR is then left on that input always and all switching is done with Quick^6. If the Quick^6 connection to the AVR is from the Aux HDMI output, then choose "AVR via HDMI" in the output setup menu. If the Quick^6 connection to the AVR is from the optical or coax S/PDIF output, then choose "AVR via S/PDIF" in the output setup menu.
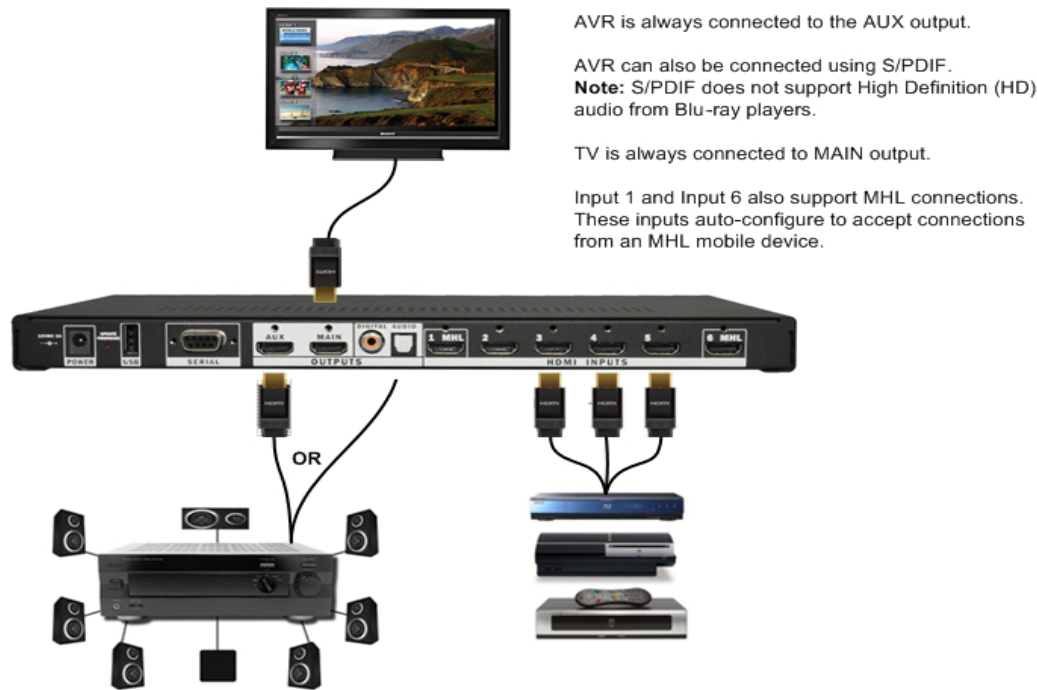
AVR Mode Routing

Why use AVR mode?

This mode is designed to extend the life of your existing AVR. In most installations, the AVR is used as not only the audio amplifier but also the central video switch. Since the audio needs to match the video being displayed, running everything through the AVR is the simplest method. While AVRs tend to have a long life and continue to provide basic audio functions, video standards and features change more quickly. Adding Quick^6 to an existing system upgrades the entire entertainment center to the latest features. With Quick^6 installed, the AVR is used primarily as an audio processor and Quick^6 becomes the primary switch in the system. Quick^6 routes the best possible audio to the AVR and the best possible video to the TV.

Audio and Video resolution and routing

When Quick^6 is put into "AVR via HDMI" mode, the full audio capabilities of the AVR (EDID) are scanned and combined with the best possible video capabilities of the TV (EDID) and the combination is reported back to all the inputs. In this way, the inputs will send the best possible audio (routed to the AVR) and the best possible video (routed to the TV). Since the input signal could have a resolution of up to 4K (Ultra HD) with HD audio, and the TV likely cannot handle HD audio, Quick^6 mutes the audio going to the TV when the AVR is on. HD Audio includes Dolby TrueHD as well as DTS-HD Master Audio formats.

When the AVR is disconnected or powered off, only the audio capability of the TV (normally just PCM stereo) is reported back to the inputs and the TV audio is unmuted. In this way the user can choose to watch a program just with the TV's audio (AVR off) or with full surround sound from the AVR (no audio from the TV).

This special negotiation only happens if the AVR is connected to the Aux HDMI output.

When Quick^6 is put into "AVR via S/PDIF" mode, the video capabilities of the TV (EDID) are scanned and combined with a pre-stored capability list of a standard AVR connected through S/PDIF and the combination is reported back to all the inputs. This is necessary since capabilities cannot be read through S/PDIF. This allows a full TV resolution of up to 4K while delivering the full audio capabilities possible over S/PDIF including bitstream (Dolby, DTS and other formats). In this mode, Quick^6 also mutes the audio going to the TV to prevent formats unknown to the TV from causing unwanted noise.

Since there is no way to detect if the AVR is on or off through S/PDIF, if the user wants to use the TV speakers, the output mode must be switched back to Mirror or "AVR via HDMI" manually.

AVR Mode Resolution

Mirror Mode

In this configuration, Quick^6 allows two devices to share a single stack of equipment. This mode is normally used to feed both a TV and video projector in the same room or for a second monitor in a close but related area (like a bar at the back of a home theater).

Connect any two TVs, Projectors or other displays.

AVR can also be connected via the S/PDIF output.
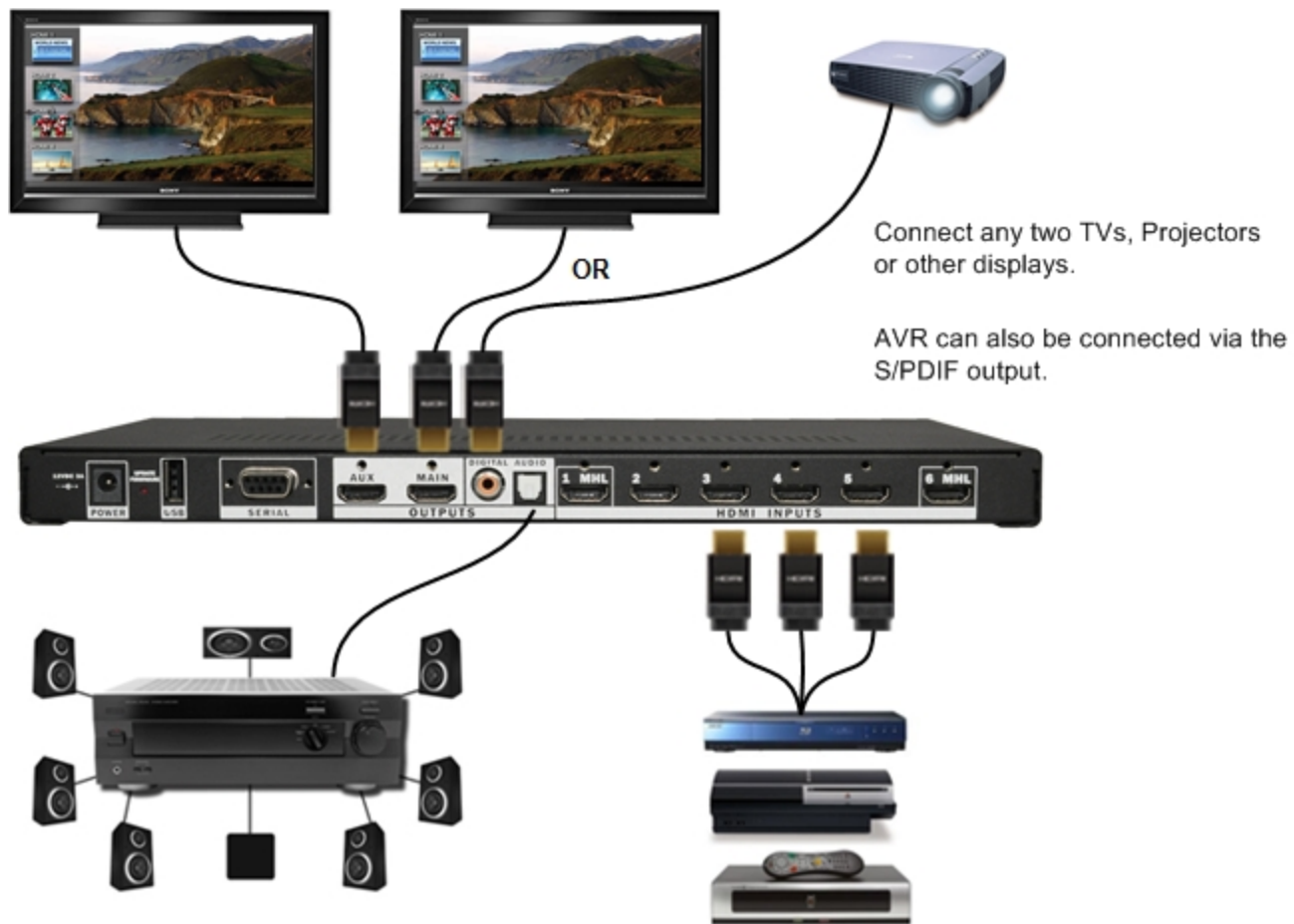
Mirror Mode Routing

Audio and video resolution and routing

In Mirror mode, the two outputs provide the same Audio and video signal. If they have different capabilities, the highest common resolution and audio capability is reported to the inputs. For example, if the Main TV is 1080p, PCM stereo and the Aux TV is 720p, 5.1-channel capable, then 720p PCM stereo will be reported to all inputs.

Note that the On-screen display (OSD) is only shown on the Main output.
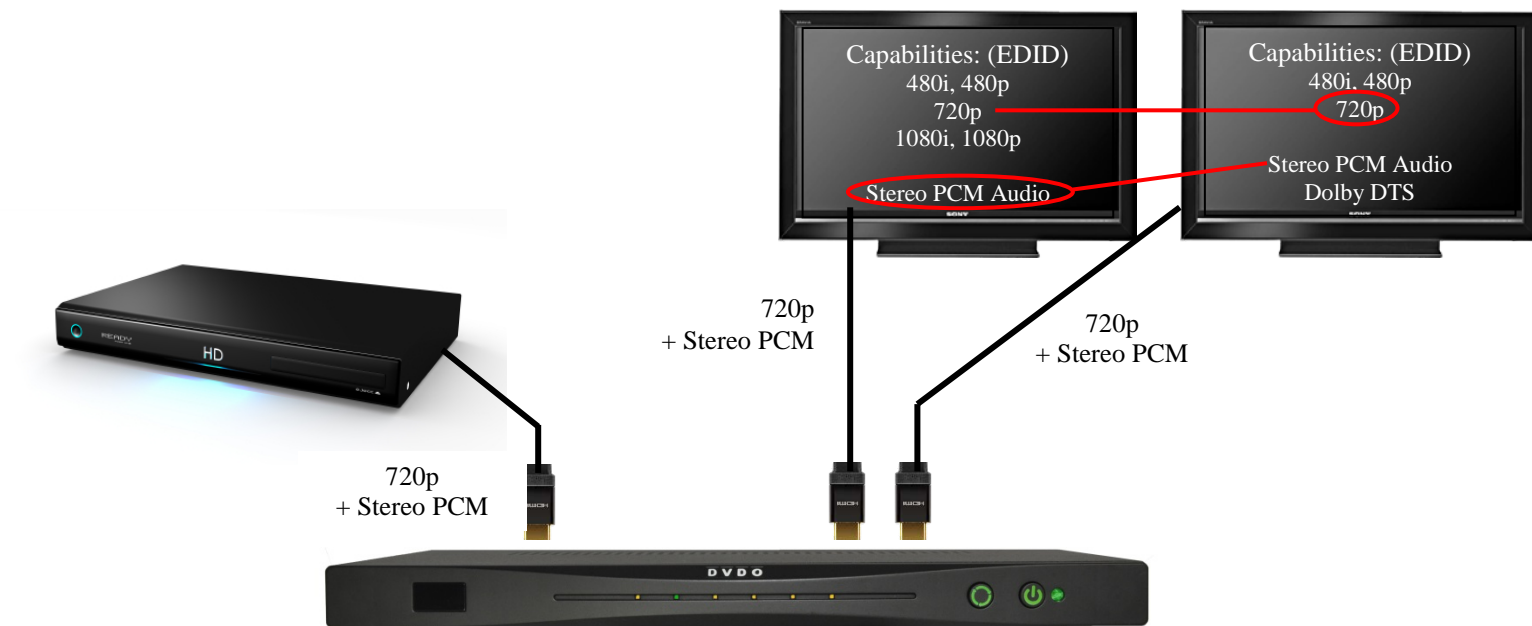
Mirror Mode Resolution

Audio Return Channel (ARC)

In some setups, it is desirable to use the TV as the source of audio. This is most common when watching live terrestrial TV from an HD antenna. In this case, the TV is receiving a live ATSC signal over-the-air. The video is shown on screen, but the user would like the audio to be played from the AVR (red path).

In most cases, the preference is for audio to be routed from the Quick^6 HDMI or MHL inputs to the Aux HDMI output or to the S/PDIF output, and ARC is only used when viewing over-the-air broadcasts.

Most TVs can be put into Automatic ARC mode so that when they sense that an audio receiver capable of receiving ARC is connected they automatically negotiate with the receiver to establish an ARC channel.

Audio Return Channel

Quick^6 has a special control mechanism to allow the user to easily switch ARC on and off; to use ARC with a Quick^6 system:

1. Insure that your TV is capable of ARC and that the correct TV HDMI input (usually marked ARC) is connected to the Quick^6 MAIN HDMI output.
2. Put the TV into ARC-on mode and turn on CEC (note that these two menu items will be labeled differently by manufacturer – refer to the TV user's manual for more information)
3. Connect an audio receiver from Quick^6 S/PDIF output (either coax or optical) to the receiver S/PDIF input
4. Switch the receiver to the S/PDIF input source
5. Either – press the ARC button on the Quick^6 remote control – OR on the Quick^6 On screen menu, under advanced settings, select Enable ARC

Note that you can enable or disable ARC with the On-screen display. The ARC button on the remote control toggles between enabling and disabling ARC mode.

Normally, the TV is left in ARC-on and CEC enabled mode and when the user wants to use ARC, simply switch the audio receiver to S/PDIF input and press the ARC button on the Quick^6 remote.

Remote Control

Power and Standby/Off buttons are discrete functions and can be learned into any universal remote.

PIP: Brings up picture-in-picture window on main output or both if mirrored.

SWAP: Exchanges main and pip window.

ARC: Alternately enables and disables Audio Return Channel.

HDMI 1-6: Direct input switching.

Z1: Cycles main output between connected inputs. Cycles both outputs if in mirror mode. Z1 stands for *Zone 1.*

MENU: Brings up On-screen display (OSD) menu.

EXIT: Exits OSD menu and most other special functions.

Navigation buttons: Used for OSD menu selections. Left/Right also change input selection.

InstaPrevue: Brings up InstaPrevue selection system which displays all active HDMI inputs in their own picture-in-picture windows. They will periodically update with live screenshots of each video input. This allows user to choose the input they would like to switch to visually. The user selects the input to switch to by using the left/right arrow keys. Pressing ENTER switches to the selected input. Pressing InstaPrevue again or EXIT exits the InstaPrevue system.

On Screen Display Menu System

Pressing *MENU* on the remote control brings up the main menu, shown below.

Asterisks (*) in the descriptions indicate the factory default settings.
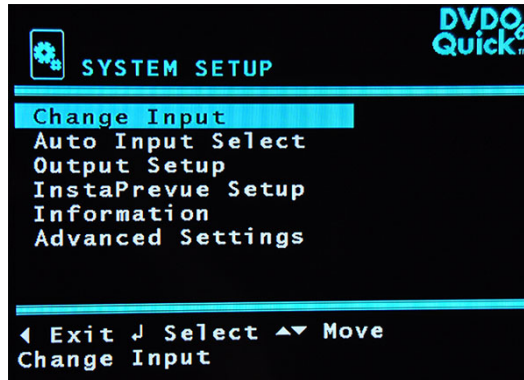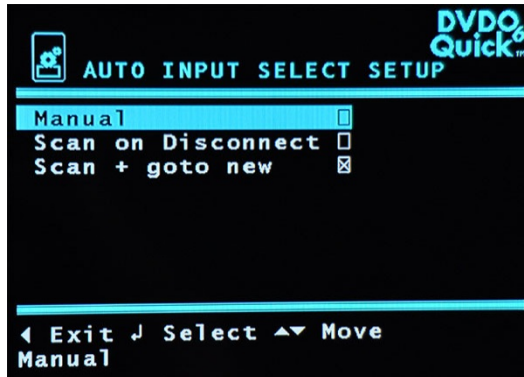

Main menu provides access to system settings.
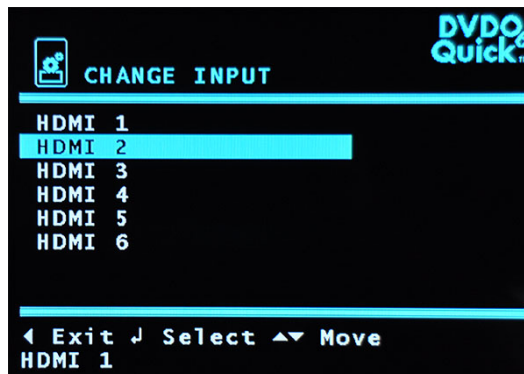
The Change Input menu allows the active input to be directly selected. This is exactly like pressing one of the HDMI input select buttons on the remote control.

Making a selection in this menu has no effect on the switching mode.

Manual: No auto switching – this is usually used when Quick[6] is controlled externally by the serial port or by a universal remote.

Auto Scan on Disconnect: Quick[6] will change to lowest numbered active input if the active source is turned off or unplugged.

*Auto Scan + Goto New: Same as previous mode <u>plus</u>, if a new source is turned on or connected, that becomes the active input.
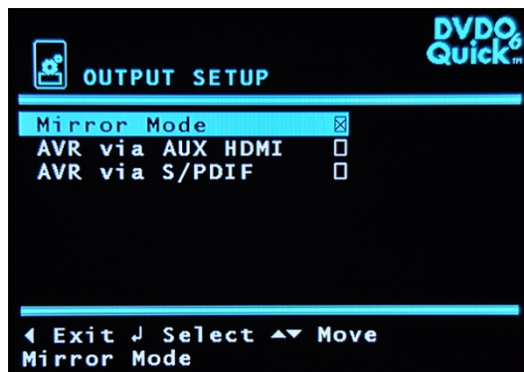
*Mirror Mode: Both HDMI outputs display the same Audio and Video. The maximum common resolution and audio capability is used.

AVR via HDMI: This is a special mode that indicates that the Aux output is going to an AVR primarily to carry audio. In this mode, if the AVR is on, its audio EDID is presented to the inputs so that the maximum audio capability of the AVR can be used. The Main output audio is also muted. If the AVR is switched off, the Main output (TV) EDID is presented to the inputs and main audio is unmuted. So the user can use the TV for audio in normal situations or turn on an AVR and get full HD audio.

AVR via S/PDIF: Similar to the previous except the connection to the AVR is over S/PDIF coax or optical. Since no capabilities or power can be sensed through S/PDIF, this mode uses a standard AVR over S/PDIF capability set and mutes main audio. If only Mirror mode is used then typically a maximum of stereo PCM is sent over S/PDIF; with this mode enabled, full bitstream DTS audio can be delivered to the AVR.
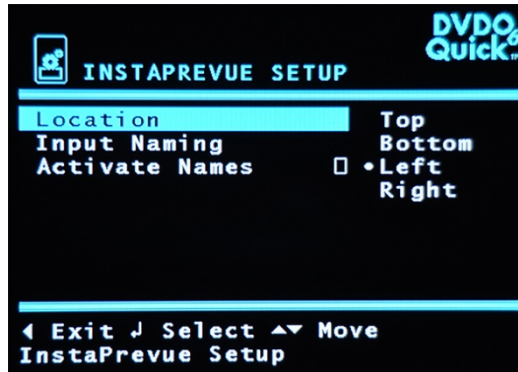
Location: The InstaPrevue windows can be moved to four different screen locations. By default, they display vertically on the *Left of the screen.

Input Naming: This selection brings up an on screen keyboard and allows the user to give friendly names to each input. The default names are * HDMI 1 through HDMI 6.

Activate Names: If checked, the friendly names are shown above the InstaPrevue windows when the InstaPrevue button is pressed. If *unchecked, a simple offset is used to show the window selection instead.
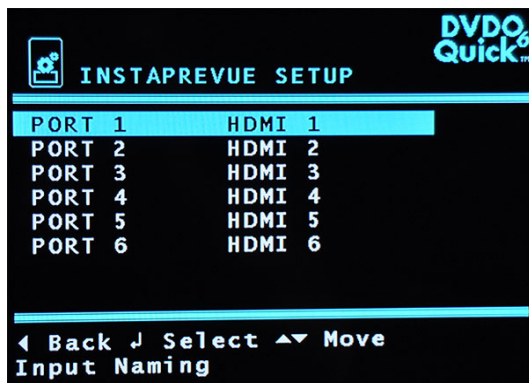
Selecting Input Naming allows the user to choose an input name to customize.
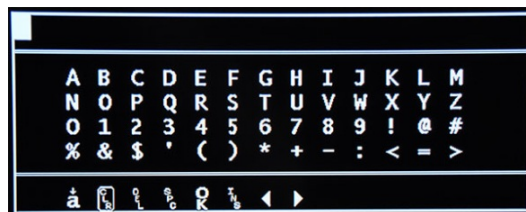
Selecting an input to customize activates an on-screen keyboard.

Select Clear [CLR] to remove the existing name.

Enter the customized name, maximum 6 characters.

Use lower case shift to enter lower case letters.

Select OK to save.

Customized names are saved to memory and will remain even through a power outage.

Remember that Inputs 1 and 6 also support the MHL interface..

Input 6 is also spaced out a little further from Input 5 to allow space for special MHL devices such as the Roku Streaming Stick.

The Information screen displays critical switch settings as well as audio and video information about the current active input.
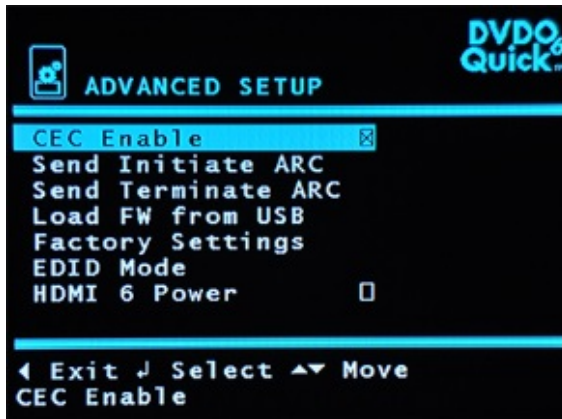
CEC Enable: If checked, Quick[6] will respond to CEC commands i.e. power on/off. If unchecked, CEC commands will be ignored. *On

Enable ARC: Enables Audio Return Channel from the TV to the main HDMI output. It sends a request to the TV to begin sending audio.

Disable ARC: Disables the ARC function and sends a request to the TV to terminate the stream and exit ARC mode.

Load FW from USB: Loads new firmware from an inserted USB flash drive. Note: user needs to confirm this operation by pressing ENTER again,. See Updating Firmware for more information.

Factory Settings: Resets Quick[6] to factory default settings. Note: the user needs to confirm this operation by pressing ENTER again. Power cycle Quick[6] after 30 seconds.

EDID Mode: Allows setting a fixed EDID.

HDMI 6 Power: Allows non-MHL mobile devices to charge on port 6 and aids with compatibility with older devices. When activated, the input will always appear to be active even if the connected source is off. This results in a blank InstaPrevue and PiP window and an always on amber input LED. * Off
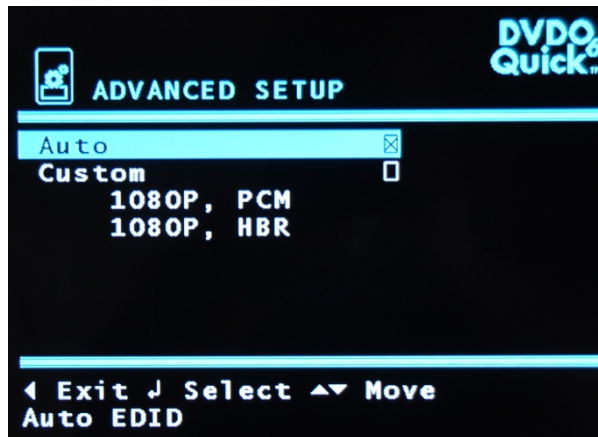
*Auto: Automatic source and display capability sensing. Use this for best compatibility unless you have trouble with a specific device.

Custom: Once checked, one of the capability choices below can be selected. These options activate a special mode where all capabilities of attached devices are ignored and the selected ones are used instead.

1080P, PCM: Sends EDID capability information of 1080p video and stereo PCM audio to all sources regardless of what display is attached.

1080P, HBR: Sends EDID capability information of 1080p video and High Bit Rate (HD) Audio to all sources regardless of what display is attached.

Note that when using a custom EDID, this overrides any choices in the output setup menu.

Updating Firmware

Quick[6] allows firmware updates through an attached USB flash drive.

Firmware version can be checked using the OSD menu and accessing the information screen.

- Firmware version 0101 (filename Q6FW0101.BIN) displays as *01.01* on the information screen

Two files are required to update the Quick[6] firmware (both available from DVDO.com as new firmware is released), a .BIN file which contains the actual firmware binary and an .OSD file which contains the fonts, text, and graphics for the OSD.

- The two files must be placed in the root directory of a FAT or FAT32 formatted USB flash drive
- The files must be in the format Q6FW*xxxx*.BIN and Q6FW*xxxx*.OSD where *xxxx* is the version number of the firmware.
- ALL letters are upper case, including the extensions of BIN and OSD.
- The two files must have the same firmware version before programming will be allowed.
- Only one pair of firmware files can exist in the root directory or firmware will not program.

There are two methods for upgrading firmware: a) through OSD and b) the Update button:

To upgrade firmware using the On-screen-display (preferred)

1. Download and place the two firmware files on a USB flash drive and insert in the USB slot in the back of Quick[6]
2. Bring up the Quick[6] menu and choose Advanced Settings, then Load FW from USB. Press ENTER again to confirm.
3. The Green light on Input3 will blink
4. The Green lights on Input 1 and 3 will alternate to show success or Input 2 will turn amber for failure and Quick[6] will then reset.
5. Confirm the new firmware version by checking the information screen from the main menu.

6. If you choose to also reset settings to factory defaults, select Factory Settings and confirm by pressing ENTER again. Always allow 30 seconds for reset to complete and then power cycle

To upgrade firmware using the firmware update button

This is a fail-safe method that will work even if the firmware becomes corrupted and you cannot load firmware from the OSD.

1. Plug in the USB flash drive to the back of Quick^6
2. Unplug all sources from Quick^6.
3. While holding the firmware Update button, plug in the power cord
4. Keep holding the firmware Update button for about 3 seconds until the green LED on port 3 illuminates
5. Release the firmware Update Button
6. Two flashing amber lights indicates an error – usually incorrect or non-matching filenames
7. Two flashing green lights indicate success – this normally takes between 5 and 10 seconds
8. If you choose to also reset settings to factory defaults, select Factory Settings and confirm by pressing ENTER again. A-lways allow 30 seconds for reset to complete and then power cycle

Troubleshooting a firmware update error
A firmware update error is indicated by one or two amber lights on the front of Quick^6.

- Be sure the firmware version you are trying to load is different than the one already in Quick^6 – firmware update will not proceed if the version is identical.
- Be sure there are two files on the root directory of the USB stick and they conform to the naming convention described above: Q6FW*xxxx*.BIN and Q6FW*xxxx*.OSD (upper case letters are required)
- If there is no USB flash drive inserted or the files are incorrect, a single or double amber light will illuminate and a reset requires removing the power cord and then reattaching.
- Start with a clean and empty USB flash drive formatted to FAT or FAT32
- If firmware has become corrupted, use the firmware Update button method above

Serial Control

The serial port allows an external home automation system to control Quick^6. All menu and remote commands are available as well as a series of queries to determine the status of Quick^6. Contact DVDO for a detailed command reference.

Troubleshooting:

Issue:	Possible Resolution:
Quick^6 or other sources turn off unexpectedly, Quick^6 or sources power down when TV is turned off	This is caused by CEC commands from the TV instructing other devices to power down when it is switched off. If this is undesired behavior, uncheck the "CEC Enable" box in the advanced settings menu on Quick^6. This essentially tells Quick^6 to ignore CEC commands. They will still be passed through Quick^6 to the sources.
Blu-ray pauses when a different input on Quick^6 is selected	This is caused by CEC commands from Quick^6 instructing other devices to power down or pause when switched. If this is undesired behavior, uncheck the "CEC Enable" box in the advanced settings menu on Quick^6. This essentially tells Quick^6 to ignore CEC commands. They can still be passed through Quick^6 however to the sources.
Slow response from Quick^6 – menu system, switching	Uncheck the "CEC Enable" box in the advanced settings menu of Quick^6. Excessive CEC commands can cause unexpected behavior.
Source is not recognized by	If a source does not cause the corresponding input LED to light with an amber color (indicating that an active source is plugged in to an HDMI port), move that source to HDMI Input 6 and then check the "HDMI 6 Power" box in the advanced settings in the

Quick[6]	Quick[6] menu. Some older devices need extra help being recognized. Note that with a passive MHL cable and this setting enabled, Quick[6] will charge non-MHL smartphones or tablets.
No video	• Check that the source is not forced to a resolution that your display cannot handle • Check all HDMI cables are firmly plugged in on both ends • Try changing inputs on Quick[6] and back to reset the capability tables • Make sure that the correct output mode is chosen in the Quick[6] menu – mirror if using two displays, AVR via HDMI if AVR is connected to Aux HDMI output, AVR via S/PDIF if AVR is connected to S/PDIF output • Try using a custom EDID if your display is capable of 1080p using the EDID mode in the Quick[6] Advanced Settings menu.
No Audio	• Make sure the correct output mode is chosen in the Quick[6] menu – mirror if using two displays, AVR via HDMI if AVR is connected to Aux HDMI output, AVR via S/PDIF if AVR is connected to S/PDIF output • Make sure source is not forcing audio to a format that TV is not capable of (bitstream) if in mirror mode • Make sure theAVR is powered and on the correct input (the input connected to either Aux HDMI or S/PDIF on Quick[6]) • If using S/PDIF connection check that it is properly assigned on the AVR to the selected video input
Only Stereo from AVR when in AVR via Aux HDMI or AVR via S/PDIF	Even though the full audio capability of the AVR is being reported back to the selected source (i.e. Blu-ray or DVD player), audio modes like bitstream DTS and Dolby normally have to be manually selected on the source menu. PS3 and most DVD players allow the audio mode to be manually selected at "bitstream" which

mode	enables full surround sound even through the S/PDIF channel on Quick^6.
	1. Note that if bitstream is chosen on a source and the AVR is then switched off, even though Quick^6 will unmute the audio stream to the main display, the main display may not be capable of decoding a bitstream audio channel and no audio will be heard. Either change the source audio mode back to PCM/LPCM or turn on the AVR and select the appropriate input on the AVR.
Quick^6 is not auto-switching properly	Check the auto-switch settings in the Quick^6 menu. Manual disables autoswitch.
InstaPrevue windows are missing	Only active inputs are displayed in the InstaPrevue screen. Any sources that are powered down or in standby will not appear. If HDMI 6 power is used or an input uses a non-standard power save mode, a grey window may appear for that input.
Firmware will not update from the USB flash drive	• Be sure both firmware files .OSD and .BIN are in the root directory of the USB flash drive and there are no other firmware files there. • Be sure both files are for the same firmware version (same number) • Be sure all capital letters are used in the filenames including the extension – format will be Q6FWxxxx.BIN and Q6FWxxxx.OSD where xxxx is a 4 digit number common to both filenames • When writing the files to the USB flash drive, choose Eject from the right click menu to insure properly closed and written files before removing drive from a computer • When updating with the firmware Update button, unplug all HDMI connections from Quick6. Remove power from Quick^6. Hold firmware update button and apply power.,
Factory Default issues:	Follow reset procedure exactly:

Slow response after resetting to defaults, Defaults not saved properly	1. Choose Factory Settings from the Advanced Setup menu on Quick[6] 2. Press ENTER again to confirm and start the reset 3. Wait 30 seconds 4. Power Quick[6] down and then back up

Audio Return Channel not working	Audio Return channel depends on a set of instructions passed between the primary display and Quick[6]. Since Quick[6] replaces the AVR as the main switching device in the system, Quick[6] has the ability to appear as both a standard switcher and/or an AVR to the display. First, set up the TV to allow ARC, and then Quick[6] can be quickly set to "appear as a switcher" (turning off the ARC channel) or "appear as an AVR" (turning on the ARC channel).
	
	1. In the primary TV menu system, turn CEC on. (Note that different manufacturers use different brand names for this function – refer to the TV user's manual for more information on enabling commands over HDMI)
	
	2. In the primary TV menu system, enable ARC (usually in an audio menu)
	
	3. If applicable to your TV, scan for and select Quick[6] as the primary audio source
	
	4. Use Quick[6] to enable and disable ARC channel as needed with one of the following methods:
	
	    a. From the Advanced Setup menu in Quick[6] choose "Initiate ARC" to start the channel or "Terminate ARC" to stop the ARC channel. These commands are provided separately in case your TV needs to see the command more than one time to make the switch.
	
	    b. From the Quick[6] remote control, press the ARC button one time to enable ARC channel and again to disable ARC channel.
	
	The path for ARC is from the main display "into" the Main Quick[6] HDMI output then

	out of the S/PDIF output on Quick^6. So when you press the ARC button on Quick^6 remote control, the S/PDIF output will switch back and forth between the audio from the selected input on Quick^6 to the audio from the main display. Depending on the types of sources you have, one input may need to be active on Quick^6 for ARC to pass audio properly and for the menu system to be visible. Be sure that your TV supports ARC and that the connection from Quick^6 to the TV is from the MAIN HDMI output on Quick^6 to a TV input that supports ARC (normally labeled ARC). Not all inputs on a TV support ARC.
InstaPrevue windows slow to update, PiP windows slow to update, Quick^6 slow to switch	Depending on your sources, try using InstaPrevue windows in the left or right position for best efficiency Upon initial power up and InstaPrevue/PiP first use after power up, Quick^6 goes through a discovery process to determine the capabilities and encryption settings of each source, display, and AVR. Allow all windows to populate one time then resume normal use.
Trouble entering friendly names for Inputs	The on-screen-keyboard is provided to make naming your inputs simple. At the bottom of the keyboard, special characters provide keyboard control: a: Go to lowercase letters and extra symbols clr: Clear entire entry – normally use this first before entering new characters del: delete currently highlighted character spc: space ok: save the entry and return ins: insert a character

	< >: Move cursor left or right Names can only be 6 total characters each
Quick^6 will not power up properly, or will not upgrade firmware	When updating with the firmware Update button, unplug all HDMI connections from Quick6. Remove power from Quick^6. Hold firmware update button and apply power.,

Specifications

Four 300 MHz (4K Ultra HD) 3D HDMI inputs andtwo HDMI/MHL combo inputs

S/PDIF coax and optical outputs

Two 300MHz (4K Ultra HD) 3D HDMI outputs

HDMI certification including CEC and ARC

MHL certification

FCC and CE

IR and Serial Control

Serial protocol: 19200: 8, n, 1

Serial commands available on request from help@DVDO.com

USB firmware update using FAT or FAT32 formatted flash drive

12V, 3A DC input

Rack mounting via shelf only

FCC Interference and Compliance Statement

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

FCC WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and the receiver.

•Connect the equipment into an outlet different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

Caution

To comply with the limits for an FCC Class B computing device, always use the shielded signal cord supplied with this unit.

The Federal Communications Commission warns that changes or modifications of the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE mark for Class B ITE (Following European standard EN55022/1998; EN61000-3-2/1995; EN61000-3-3/1995, EN55024/1998, EN60950-1/2001)

Radio Frequency Interference Statement Warning: This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Warranty

General Warranty Terms

DVDO, Inc., (DVDO), offers a limited warranty for its DVDO products. Any product first sold to you is guaranteed to be free from defects in both components and workmanship under regular uses. The warranty period commences on the date the item ships.

Attention: *Your invoice with the date of purchase, model number and serial number of the product is your proof of the date of purchase.*

The International Limited Warranty is applicable and shall be honored in every country where DVDO or its Authorized Service Providers offer warranty service subject to the terms and conditions provided in this International Limited Warranty Statement.

DVDO Products Warranty Period

The warranty terms for DVDO products are:	Domestic & Asia	EU & UK
DVDO Edge Green	1 Year	2 Years
DVDO Duo	1 Year	2 Years
DVDO Air	1 Year	2 Years
DVDO Quick[6]	1 Year	2 Years

System Warranty

During the warranty period, the defective hardware of DVDO products will be either repaired or replaced, with new or like new products, at the discretion of DVDO except in the cases listed in the **Limitation of Liability Clause** of this document

This International Limited Warranty covers the costs of service parts and labor required to restore your product to fully functional condition. DVDO will, at its discretion, repair or replace any defective products or parts thereof covered by this International Limited warranty with refurbished parts of the product that are equivalent to new or like new products in both functionality and performance. A product or part that is repaired or replaced under this International Limited Warranty shall be covered for the remainder of the original warranty period applying to the product or part, or for 90-days, whichever expires last. All exchanged parts and products under this International Limited Warranty will become the property of DVDO.

DVDO offers no warranty of any kind for any pre-installed software, its quality, performance, functionality, or compatibility for a particular purpose. Nor does DVDO warrant that the functions contained in the software will meet specific requirements or that the operation of the software will be uninterrupted or error-free. Thus, the software is sold 'as is" unless otherwise explicitly stated in writing.

Obtaining the Warranty Service

Warranty service or Returned Merchandise Authorization (RMA) under this International Limited Warranty will be honored only if claims are made within the warranty period. For notifications to DVDO or products outside the warranty period, the process will be the same, but charges may apply. Contact details may be obtained on DVDO website http://www.dvdo.com/support/rma.aspx. Customers are requested to perform the following actions before claiming DVDO product as defective:

(a) Owner must notify DVDO, during the warranty period, in writing of alleged defect, and allow DVDO a reasonable opportunity to inspect the allegedly defective product;

(b) No Product may be returned without DVDO's consent, The DVDO RMA# must accompany all returns, and all returns must be delivered to DVDO within the warranty period;

(c) Owner may, then at its own expense, return the allegedly defective Product, freight pre-paid and in the original packaging, accompanied by a brief statement explaining the alleged defect to DVDO;

(d) If DVDO determines that any returned Product is not defective, or if DVDO determines that the defect is not covered by the warranty, DVDO will return the Product to the Owner at Owner's expense, freight collect, and Owner agrees to pay DVDO's reasonable cost of handling and testing;

(e) Upon determining that a returned product is defective, to receive warranty service Owner will need to present the invoice showing the original purchase transaction. If shipping the product, Owner will need to package it carefully and send it, transportation prepaid by a traceable, insured method, to the DVDO Service Center. Package the product using adequate padding material to prevent damage in transit. The original container is ideal for this purpose. Include the RMA#, your name, return shipping address, email address and telephone number where you may be reached during business hours, inside the shipping package with the unit. Any replacement unit will be warranted under these Terms and Conditions for the remainder of the original warranty period or ninety (90) days whichever is longer.

Refer to user manual enclosed within the product package and/or information on http://www.dvdo.com/support/documentation.aspx for important tips on how to operate and troubleshoot the product.

International Warranty

Warranty may be valid when a DVDO product is purchased in one country and transferred to another country, without voiding the warranty. Please be advised that service availability and response time may vary from country to country. Warranty is transferrable within the warranty period.

DVDO is not responsible for any export and import control issues, handling fees, tariffs, import duties, and all other related fees where owner is responsible for shipping its products. This International Limited warranty does not affect your statutory rights.

Limitation of Liability

DVDO reserves the right to refuse warranty service of products under disputable conditions. DVDO also holds the rights to declare final decision whether products are within warranty conditions. The following actions and damages will result in voiding the limited warranty:

- Damage caused by act of nature, such as fire, flood, wind, earthquake, lightning, etc.
- Damage or incompatibility caused by failure to perform a proper installation or to provide an appropriate operational environment for the product, including but not limited to unstable wired/ wireless network connection and phone lines, bad grounding, external electro-magnetic fields, direct sunlight, high humidity and vibration.
- Damage caused by impact with other objects, dropping, falls, spilled liquids, or submersion in liquids.
- Damage caused by unauthorized repair or disassembling of the product.
- Damage caused by any other abuse, misuse, mishandling, or misapplication.
- Damage caused by third party peripherals (including but not limited to visible damages on motherboard or other electronic parts of the product such as burn spots after electric discharge, melting, fusing, splitting, etc.)
- Any unauthorized software or modification of built-in software not approved by DVDO.
- The serial number of the product (or serial number stickers of its parts) has been modified, removed, blurred or damaged.
- Defects caused by transportation, handling or customer abuse.

Disclaimer of Warranty

THIS WARRANTY IS EXPRESSED IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON DVDO'S PART, AND IT NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PARTY TO ASSUME FOR DVDO ANY OTHER LIABILITIES. THE FOREGOING CONSTITUTES THE BUYER'S SOLE AND EXCLUSIVE REMEDY FOR THE FURNISHING OF DEFECTIVE OR NONCONFORMING PRODUCTS AND DVDO WILL NOT IN ANY EVENT BE LIABLE FOR COST OF SUBSTITUTE OR REPLACEMENT, COST OF FACILITIES OR SERVICE, DOWNTIME COSTS, LOSS OF PROFITS, REVENUES OR GOODWILL, RELIANCE DAMAGES, LOSS OF DATA, LOSS OF USE IF OR DAMAGE TO ANY ASSOCIATED EQUIPMENT, OR ANY OTHER INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES BY REASON OF THE FACT THAT SUCH PRODUCTS WILL HAVE BEEN DETERMINED TO BE DEFECTIVE OR NONCONFORMING.

THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS AGREEMENT SHALL NOT BE GOVERENED BY THE PROVISIONS OF THE 1980 U.S. CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS OR THE UNITED NATIONS CONVENTION ON THE LIMITATION PERIOD IN THE INTERNATIONAL SALE OF GOODS, AS AMENDED (COLLECTIVELY, THE "CONVENTIONS"); RATHER, THE RIGHTS AND OBLIGATIONS OF THE PARTIES SHALL BE GOVERNED BY THE LAWS OF THE SATE OF CALIFORNIA, INCLUDING ITS PROVISIONS OF THE UNIFORM

COMMERCIAL CODE, AS APPLICABLE. FOR THE AVOIDANCE OF DOUBT, THE CONVENTIONS ARE HEREBY EXCLUDED.

This Limited Warranty gives you specific legal rights. You may also have other rights that may vary from state to state or from country to country. You are advised to consult applicable state or country laws for full determination of your rights. Some jurisdictions do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long a warranty lasts, so the above exclusion and limitations may not apply to everyone

Getting Help

For service and support, contact your local dealer.

To find your dealer or to contact DVDO support, go to:

www.dvdo.com/support

or call

1-888-651-1765

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Sunnyvale, CA 94085

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